

SEQUENCE LISTING

<110> Sato, Taki-Aki

<120> GENE ENCODING NADE, P75NTR- ASSOCIATED
CELL DEATH EXECUTOR AND USES THEREOF

<130> 0575/59131/JPW/APE

<140> 09/327,750

<141> 1999-06-07

<160> 45

<170> PatentIn version 3.0

<210> 1

<211> 36

<212> DNA

<213> MOUSE

<400> 1
aattgtctac gcatccttat gggggagctg tctaac 36

<210> 2

<211> 12

<212> PRT

<213> MOUSE

<400> 2

Asn Cys Leu Arg Ile Leu Met Gly Glu Leu Ser Asn
1 5 10

<210> 3

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<221> misc_feature

<222> (1)..(30)

<223> Mouse Nade DNA

<400> 3
ctagctagca tcatggtgag caagggcgag 30

<210> 4

<211> 28

<212> DNA

<213> Artificial Sequence

<220>

<221> misc_feature

<222> (1)..(28)

<223> Mouse Nade DNA

<400> 4

ccgctcgagt cttgtacagc tcgtccat

28

<210> 5
 <211> 29
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> misc_feature
 <222> (1)..(29)
 <223> Mouse Nade DNA

<400> 5
 atcctcgagc gatcatggcc aatgtccac

29

<210> 6
 <211> 27
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> misc_feature
 <222> ()..()
 <223> Mouse Nade DNA

<400> 6
 atcggatcct ctcagctgta gtcacct

27

<210> 7
 <211> 27
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> misc_feature
 <222> (1)..(27)
 <223> Mouse Nade DNA

<400> 7
 atcggatccg atctctctca tctcctc

27

<210> 8
 <211> 27
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> misc_feature
 <222> (1)..(27)
 <223> Mouse Nade DNA

<400> 8
 aaagcttagg gaggcacagc tgagaaa

27

<210> 9
 <211> 27
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> misc_feature
 <222> (1)..(27)
 <223> Mouse Nade DNA

<400> 9 27
 tttctcagct gtgcctccct aagcttt

<210> 10
 <211> 26
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> misc_feature
 <222> (1)..(26)
 <223> Mouse Nade DNA

<400> 10 26
 atccggagaa aggctaggga ggcaca

<210> 11
 <211> 26
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> misc_feature
 <222> (1)..(26)
 <223> Mouse Nade DNA

<400> 11 26
 tgtgcctccc tagcctttct ccggat

<210> 12
 <211> 124
 <212> PRT
 <213> MOUSE

<400> 12
 Met Ala Asn Val His Gln Glu Asn Glu Glu Met Glu Gln Pro Leu Gln
 1 5 10
 Asn Gly Glu Glu Asp Arg Pro Val Gly Gly Gly Glu Gly His Gln Pro
 20 25 30
 Ala Gly Asn Asn Asn Asn Asn Asn His Asn His Asn His Asn His His
 35 40 45

Arg Arg Gly Gln Ala Arg Arg Leu Ala Pro Asn Phe Arg Trp Ala Ile
 50 55 60
 Pro Asn Arg Gln Met Asn Asp Gly Leu Gly Gly Asp Gly Asp Asp Met
 65 70 75 80
 Glu Met Phe Met Glu Glu Met Arg Glu Ile Arg Arg Lys Leu Arg Glu
 85 90 95
 Leu Gln Leu Arg Asn Cys Leu Arg Ile Leu Met Gly Glu Leu Ser Asn
 100 105 110
 His His Asp His His Asp Glu Phe Cys Leu Met Pro
 115 120

<210> 13
 <211> 111
 <212> PRT
 <213> HUMAN

<400> 13

Met Ala Asn Ile His Gln Glu Asn Glu Glu Met Glu Gln Pro Met Gln
 1 5 10 15
 Asn Gly Glu Glu Asp Arg Pro Leu Gly Gly Gly Glu Gly His Gln Pro
 20 25 30
 Ala Gly Asn Arg Arg Gly Gln Ala Arg Arg Leu Ala Pro Asn Phe Arg
 35 40 45
 Trp Ala Ile Pro Asn Arg Gln Ile Asn Asp Gly Met Gly Gly Asp Gly
 50 55 60
 Asp Asp Met Glu Ile Phe Met Glu Glu Met Arg Glu Ile Arg Arg Lys
 65 70 75 80
 Leu Arg Glu Leu Gln Leu Arg Asn Cys Leu Arg Ile Leu Met Gly Glu
 85 90 95
 Leu Ser Asn His His Asp His His Asp Glu Phe Cys Leu Met Pro
 100 105 110

<210> 14
 <211> 13
 <212> PRT
 <213> czyxin

<400> 14

Leu Thr Met Lys Glu Val Glu Glu Leu Glu Leu Leu Thr
 1 5 10

<210> 15
 <211> 13
 <212> PRT
 <213> MAPKK

<400> 15

Ala Leu Gln Lys Lys Leu Glu Glu Leu Glu Leu Asp Glu
 1 5 10

<210> 16
 <211> 10
 <212> PRT
 <213> PKI-alpha

<400> 16

Leu Ala Leu Lys Leu Ala Gly Leu Asp Ile
 1 5 10

<210> 17
 <211> 9
 <212> PRT
 <213> TF III A

<400> 17

Leu Pro Val Leu Glu Asn Leu Thr Leu
 1 5

<210> 18
 <211> 9
 <212> PRT
 <213> Rev HIV-1

<400> 18

Leu Pro Pro Leu Glu Arg Leu Thr Leu
 1 5

<210> 19
 <211> 12
 <212> PRT
 <213> Ran BP1

<400> 19

Lys Val Ala Glu Lys Leu Glu Ala Leu Ser Val Arg
 1 5 10

<210> 20
 <211> 13
 <212> PRT
 <213> FMRP

<400> 20

Glu Val Asp Gln Leu Arg Leu Glu Arg Leu Gln Ile Asp
 1 5 10

<210> 21
 <211> 8
 <212> PRT
 <213> Gle 1

<400> 21

Leu Pro Leu Gly Lys Leu Thr Leu
 1 5

<210> 22

<211> 14
 <212> PRT
 <213> Rex HTLV-1

<400> 22

Ala Leu Ser Ala Gln Leu Tyr Ser Ser Leu Ser Leu Asp Ser
 1 5 10

<210> 23
 <211> 13
 <212> PRT
 <213> human NADE

<400> 23

Arg Glu Ile Arg Arg Lys Leu Arg Glu Leu Gln Leu Arg
 1 5 10

<210> 24
 <211> 13
 <212> PRT
 <213> mouse NADE

<400> 24

Arg Glu Ile Arg Arg Lys Leu Arg Glu Leu Gln Leu Arg
 1 5 10

<210> 25
 <211> 27
 <212> PRT
 <213> MOUSE

<400> 25

Arg Glu Ile Arg Arg Lys Leu Arg Glu Leu Gln Leu Arg Asn Cys Leu
 1 5 10 15

Arg Ile Leu Met Gly Glu Leu Ser Asn His His
 20 25

<210> 26
 <211> 27
 <212> PRT
 <213> HUMAN

<400> 26

Arg Glu Ile Arg Arg Lys Leu Arg Glu Leu Gln Leu Arg Asn Cys Leu
 1 5 10 15

Arg Ile Leu Met Gly Glu Leu Ser Asn His His
 20 25

<210> 27
 <211> 8
 <212> PRT
 <213> CONSENSUS (MOUSE v. HUMAN)

<400> 27

Arg Leu Leu Asn Arg Leu Leu Asn
 1 5

<210> 28
 <211> 700
 <212> DNA
 <213> MOUSE

<400> 28
 acgagcgtct ggccagcagc tcggagctcc tctgcgcgcg gcgggctggc agcgggcccc 60
 aggcgagcgg gacagattga ctggaagccg agagtccagg cggcagcggg aattgacagg 120
 aggactacgc cgcaagggat aggcccagaa tagcaaccag gaaacaaaat ctcacatcagg 180
 ccaatgtcca ccaggaaaac gaagagctgg agcagcccct gcagaatgga caggaacacc 240
 gccctgtggg aggaggtgag ggccaccagc ctgctgcaaa caacaacaac aacaaccaca 300
 accataacca caaccaccac cgaagaggcc aggctcgcgg acctgcccct aacttccgat 360
 gggccattcc caacaggcag atgaatgacg ggttgggtgg agatggagat gatattgaaa 420
 tgttcattga ggagatgaga gagatccgga gaaagcttag ggagctacag ctgagaaatt 480
 gtctacgcac ctttatgggg gagctgtcta accaccacga tcaccatgat gaattctgcc 540
 ttatgccttg acttcggtca tttccccctg agatccatac tgtgactccc gctgtagccc 600
 tttccctcgc attttcttga catgccttta atgaccggtt tgtggtgagc cctgtgttat 660
 ttccatgccca tgtgccaggt ggggcttctg ttgccagtga 700

<210> 29
 <211> 891
 <212> DNA
 <213> HUMAN

<400> 29
 accccatccc ccaactcctat accggtcctc catttttggtg cctgcaaagc tctgggaaaag 60
 aatcccggga aacgaaaaat ggtgggtttg ggggaagggga ggtaagggga gaaagctgga 120
 gggaggggct ttaattggag gccccgtaga ggacgcgcgg aacttctaag gtgggaaaaa 180
 acgaaattaa aaaatccttt gatatcaggg ctctgaatcc tgctggtcag agcaccaagc 240
 attcagtcctc tctccttgcc tttgtcttac ttgtgttcaa agaaaaacaa ccagaaaaaa 300
 aaaatctcat catggcaaatt attcaccagg aaaacgaaga gatggagcag cctatgcaga 360
 atggagagga agaccgccct ttgggaggag gtgaaggcca ccagcctgca ggaaatcgac 420
 ggggacaggc tcgccgactt gcccctaatt ttcgatgggc catacccaat aggcagatca 480
 atgatgggat ggggtggagat ggagatgata tggaaatatt catggaggag atgagagaaa 540
 tcagaagaaa acttagggag ctgcagttga ggaattgtct gcgtatcctt atgggggagc 600
 tctctaataca ccatgaccat catgatgaat tttgccttat gccttgactc ctgccattta 660

```

tcatgagatt aatactgtga ttcccgctgt tttctttttc cttgcatttt cctaatatgc      720
ctttactgat ccgtttgctg tgaaccctat gttattttcca tgtgtcaagt gggctcttg      780
ttgccagctt ctatttgaag attgcctttg cactcagtgt aagtttctgt cagcagtagt      840
ttcacccatt tgcattggaaa aatttaaagc caataaagca atttaaaaag c              891

```

<210> 30
 <211> 128
 <212> PRT
 <213> NADE 3a

<400> 30

```

Met Glu Ser Lys Asp Gln Gly Val Lys Asn Leu Asn Met Glu Asn Asp
1      5      10      15
His Gln Lys Lys Glu Glu Lys Glu Glu Lys Pro Gln Asp Thr Ile Arg
20      25      30
Arg Glu Pro Ala Val Ala Leu Ile Ser Glu Ala Gly Lys Asn Cys Ala
35      40      45
Pro Arg Gly Gly Arg Arg Arg Phe Arg Val Arg Gln Pro Ile Ala His
50      55      60
Tyr Arg Trp Asp Leu Met Gln Arg Val Gly Glu Pro Gln Gly Arg Met
65      70      75      80
Arg Glu Glu Asn Val Gln Arg Phe Gly Gly Asp Val Arg Gln Leu Met
85      90      95
Glu Lys Leu Arg Glu Arg Gln Leu Ser His Ser Leu Arg Ala Val Ser
100     105     110
Thr Asp Pro Pro His His Asp His His Asp Glu Phe Cys Leu Met Pro
115     120     125

```

<210> 31
 <211> 128
 <212> PRT
 <213> NANE 3a1

<400> 31

```

Met Glu Ser Lys Glu Glu Arg Ala Leu Asn Asn Leu Ile Val Glu Asn
1      5      10      15
Val Asn Gln Glu Asn Asp Glu Lys Asp Glu Lys Glu Gln Val Ala Asn
20      25      30
Lys Gly Glu Pro Leu Ala Leu Pro Leu Asn Val Ser Glu Tyr Cys Val
35      40      45
Pro Arg Gly Asn Arg Arg Arg Phe Arg Val Arg Gln Pro Ile Leu Gln
50      55      60
Tyr Arg Trp Asp Ile Met His Arg Leu Gly Glu Pro Gln Ala Arg Met
65      70      75      80

```


Arg Glu Glu Asn Met Glu Arg Ile Gly Glu Glu Val Arg Gln Leu Met
 85 90 95
 Glu Lys Leu Arg Glu Lys Gln Leu Ser His Ser Leu Arg Ala Val Ser
 100 105 110
 Thr Asp Pro Pro His His Asp His His Asp Glu Phe Cys Leu Met Pro
 115 120 125

<210> 32
 <211> 125
 <212> PRT
 <213> NADE 3a2

<400> 32

Met Glu Ser Lys Glu Lys Arg Ala Val Asn Ser Leu Ser Met Glu Asn
 1 5 10 15
 Ala Asn Gln Glu Asn Glu Glu Lys Glu Gln Val Ala Asn Lys Gly Glu
 20 25 30
 Pro Leu Ala Leu Pro Leu Asp Ala Gly Glu Tyr Cys Val Pro Arg Gly
 35 40 45
 Asn Arg Arg Arg Phe Pro Val Arg Gln Pro Ile Leu Gln Tyr Arg Trp
 50 55 60
 Asp Ile Met His Arg Leu Gly Glu Pro Gln Ala Arg Met Arg Glu Glu
 65 70 75 80
 Asn Met Glu Arg Ile Gly Glu Glu Val Arg Gln Leu Met Glu Lys Leu
 85 90 95
 Arg Glu Lys Gln Leu Ser His Ser Leu Arg Ala Val Ser Thr Asp Pro
 100 105 110
 Pro His His Asp His His Asp Glu Phe Cys Leu Met Pro
 115 120 125

<210> 33
 <211> 128
 <212> PRT
 <213> RAT

<400> 33

Met Glu Ser Lys Asp Gln Gly Ala Lys Asn Leu Asn Met Glu Asn Asp
 1 5 10 15
 His Gln Lys Lys Glu Glu Lys Glu Glu Lys Pro Gln Asp Thr Ile Lys
 20 25 30
 Arg Glu Pro Val Val Ala Pro Thr Phe Glu Ala Gly Lys Asn Cys Ala
 35 40 45
 Pro Arg Gly Gly Arg Arg Arg Phe Arg Val Arg Gln Pro Ile Ser His
 50 55 60
 Tyr Arg Trp Asp Leu Met His Arg Val Gly Glu Pro Gln Gly Arg Met
 65 70 75 80

Arg Glu Glu Asn Val Gln Arg Phe Gly Glu Asp Met Arg Gln Leu Met
 85 90 95
 Glu Lys Leu Arg Glu Arg Gln Leu Ser His Ser Leu Arg Ala Val Ser
 100 105 110
 Thr Asp Pro Pro His His Asp His His Asp Glu Phe Cys Leu Met Pro
 115 120 125

<210> 34
 <211> 118
 <212> PRT
 <213> NADE 3b

<400> 34

Met Ala Ser Lys Val Lys Gln Val Ile Leu Asp Leu Thr Val Glu Lys
 1 5 10 15
 Asp Lys Lys Asn Lys Lys Gly Gly Lys Ala Ser Lys Gln Ser Glu Glu
 20 25 30
 Glu Ser His His Leu Glu Glu Val Glu Asn Lys Lys Pro Gly Gly Asn
 35 40 45
 Val Arg Arg Lys Val Arg Arg Leu Val Pro Asn Phe Leu Trp Ala Ile
 50 55 60
 Pro Asn Arg His Val Asp His Ser Glu Gly Gly Glu Glu Val Gly Arg
 65 70 75 80
 Phe Val Gly Gln Val Met Glu Ala Lys Arg His Ser Lys Glu Gln Gln
 85 90 95
 Met Arg Pro Tyr Thr Arg Phe Arg Thr Pro Glu Pro Asp Asn His Tyr
 100 105 110
 Asp Phe Cys Leu Ile Pro
 115

<210> 35
 <211> 117
 <212> PRT
 <213> NADE 3b

<400> 35

Met Ala Ser Lys Lys Gln Val Ile Leu Asp Leu Thr Val Glu Lys Asp
 1 5 10 15
 Lys Lys Asp Lys Arg Gly Gly Lys Ala Ser Lys Gln Ser Glu Glu Glu
 20 25 30
 Pro His His Leu Glu Glu Val Glu Asn Lys Lys Pro Gly Gly Asn Val
 35 40 45
 Arg Arg Lys Val Arg Arg Leu Val Pro Asn Phe Leu Trp Ala Ile Pro
 50 55 60
 Asn Arg His Val Asp Arg Asn Glu Gly Gly Glu Asp Val Gly Arg Phe
 65 70 75 80

Val Val Gln Gly Thr Glu Val Lys Arg Lys Thr Thr Glu Gln Gln Val
 85 90 95
 Arg Pro Tyr Arg Arg Phe Arg Thr Pro Glu Pro Asp Asn His Tyr Asp
 100 105 110
 Phe Cys Leu Ile Pro
 115

<210> 36
 <211> 110
 <212> PRT
 <213> NADE 1

<400> 36

Met Ala Asn Ile His Gln Glu Asn Glu Glu Met Glu Gln Pro Met Gln
 1 5 10 15
 Asn Gly Glu Glu Asp Arg Pro Leu Gly Gly Gly Glu Gly His Gln Pro
 20 25 30
 Ala Gly Asn Arg Arg Gln Ala Arg Arg Leu Ala Pro Asn Phe Arg Trp
 35 40 45
 Ala Ile Pro Asn Arg Gln Ile Asn Asp Gly Met Gly Gly Asp Gly Asp
 50 55 60
 Asp Met Glu Ile Phe Met Glu Glu Met Arg Glu Ile Arg Arg Lys Leu
 65 70 75 80
 Arg Glu Leu Gln Leu Arg Asn Cys Leu Arg Ile Leu Met Gly Glu Leu
 85 90 95
 Ser Asn His His Asp His His Asp Glu Phe Cys Leu Met Pro
 100 105 110

<210> 37
 <211> 120
 <212> PRT
 <213> NADE 1

<400> 37

Met Glu Gln Pro Leu Gln Asn Gly Gln Glu Asp Arg Pro Val Gly Gly
 1 5 10 15
 Gly Glu Gly His Gln Pro Ala Ala Ala Asn Asn Asn Asn His Asn His
 20 25 30
 Asn His His Asn His Ser His Asn His Asn His His Arg Arg Gly Gln
 35 40 45
 Ala Arg Arg Leu Ala Pro Asn Phe Arg Trp Ala Ile Arg Asn Arg Gln
 50 55 60
 Met Asn Asp Gly Leu Gly Gly Asp Gly Asp Asp Met Glu Met Phe Met
 65 70 75 80
 Glu Glu Met Arg Glu Ile Arg Arg Lys Leu Arg Glu Leu Gln Leu Arg
 85 90 95

Asn Cys Leu Arg Ile Leu Met Gly Glu Leu Ser Asn His His Asp His
 100 105 110

His Asp Glu Phe Cys Leu Met Pro
 115 120

<210> 38
 <211> 122
 <212> PRT
 <213> NADE 1

<400> 38

Met Ala Asn Val His Gln Glu Asn Glu Glu Met Glu Gln Pro Leu Gln
 1 5 10 15

Asn Gly Gln Glu Asp Arg Pro Val Gly Gly Gly Glu Gly His Gln Pro
 20 25 30

Ala Ala Asn Asn Asn Asn Asn His Asn His Asn His His Arg Arg
 35 40 45

Gly Gln Ala Arg Arg Leu Ala Pro Asn Phe Arg Trp Ala Ile Pro Asn
 50 55 60

Arg Gln Met Asn Asp Gly Leu Gly Gly Asp Gly Asp Asp Met Glu Met
 65 70 75 80

Phe Met Glu Glu Met Arg Glu Ile Arg Arg Lys Leu Arg Glu Leu Gln
 85 90 95

Leu Arg Asn Cys Leu Arg Ile Leu Met Gly Glu Leu Ser Asn His His
 100 105 110

Asp His His Asp Glu Phe Cys Leu Met Pro
 115 120

<210> 39
 <211> 111
 <212> PRT
 <213> NADE 2

<400> 39

Met Glu Asn Val Pro Lys Glu Asn Lys Val Val Glu Lys Ala Pro Val
 1 5 10 15

Gln Asn Glu Ala Pro Ala Leu Gly Gly Gly Glu Tyr Gln Glu Pro Gly
 20 25 30

Gly Asn Val Lys Gly Val Trp Ala Pro Pro Ala Pro Gly Phe Gly Glu
 35 40 45

Asp Val Pro Asn Arg Leu Val Asp Asn Ile Asp Met Ile Asp Gly Asp
 50 55 60

Gly Asp Asp Met Glu Arg Phe Met Glu Glu Met Arg Glu Leu Arg Arg
 65 70 75 80

Lys Ile Arg Glu Leu Gln Leu Arg Tyr Ser Leu Arg Ile Leu Ile Gly
 85 90 95

Asp Pro Pro His His Asp His His Asp Glu Phe Cys Leu Met Pro
 100 105 110

<210> 40
 <211> 13
 <212> PRT
 <213> MOUSE

<400> 40

Arg Glu Ile Arg Arg Lys Leu Arg Glu Leu Gln Leu Arg
 1 5 10

<210> 41
 <211> 13
 <212> PRT
 <213> HUMAN

<400> 41

Arg Glu Ile Arg Arg Lys Leu Arg Glu Leu Gln Leu Arg
 1 5 10

<210> 42
 <211> 10
 <212> PRT
 <213> Rev

<400> 42

Leu Pro Pro Leu Glu Arg Leu Thr Leu Asp
 1 5 10

<210> 43
 <211> 12
 <212> PRT
 <213> MOUSE

<400> 43

Ala Leu Gln Lys Lys Leu Glu Glu Leu Glu Leu Asp
 1 5 10

<210> 44
 <211> 12
 <212> PRT
 <213> czyxin

<400> 44

Leu Thr Met Lys Glu Val Glu Glu Leu Glu Leu Leu
 1 5 10

<210> 45
 <211> 10
 <212> PRT
 <213> PKI-alpha

<400> 45

Leu Ala Leu Lys Leu Ala Gly Leu Asp Ile
 1 5 10

59131.ST25